In the Claims:

Please cancel claims 1-31, 35-48, and add new claims 49-105. The status of the claims is as follows:

1-48. (Cancelled)

49. (New) An antenna structure which receives a radio wave and is arranged at a position in the vicinity of a metal object, comprising

a main magnetic path in which a coil is wound about a magnetic core and a sub-magnetic path,

a magnetic path being formed with said main magnetic path and said sub-magnetic path to have a closed loop-like configuration so that a magnetic flux generated by resonance of said antenna structure caused by a radio wave reaching to said antenna structure, hardly leaks to said metal object.

50. (New) An antenna structure according to claim 49, wherein said sub-magnetic path comprises a magnetic core about which said coil is not wound.

51. (New) An antenna structure according to claim 49, wherein said sub-magnetic path is made of a soft magnetic material.

52. (New) An antenna structure according to claim 49, wherein said main magnetic path and said sub-magnetic path are separately formed from each other.

53. (New) An antenna structure according to claim 49, wherein said metal object serves as an outer casing which houses said antenna structure therewithin.

54. (New) An antenna structure according to claim 49, wherein a gap portion which forms a part of said magnetic path having said closed loop like configuration, is provided between a part of said main magnetic path and a part of said sub-magnetic path, and further wherein said gap portion has magnetic resistance thereof which is set at a value different from that of other parts of said magnetic path having a closed loop like configuration or having magnetic permeability thereof which is set at a value different from that of other parts of said magnetic path.

55. (New) An antenna structure according to claim 54, wherein said magnetic resistance being set at a value larger than that of other part of said magnetic path or said magnetic permeability being set at a value smaller than that of other part of said magnetic path.

56. (New) An antenna structure which receives a radio wave to be used inside a metal outer casing, comprising a main magnetic path in which a coil is wound about a magnetic core and a sub-magnetic path in which said coil is not wound about a magnetic core,

a magnetic path being formed to have a closed loop like configuration along said magnetic core,

a gap portion being provided in a part of said magnetic path of said antenna structure forming said closed loop like configuration, said gap portion of said magnetic path being configured to have magnetic resistance or magnetic permeability different from that of other parts of said magnetic path, and

said antenna structure having a structure wherein a magnetic flux coming from outside said metal outer casing, can be received but magnetic flux generated by resonance hardly leaks outside of said magnetic path.

57. (New) An antenna structure according to claims 49 or 56, wherein said magnetic resistance of said sub-magnetic path is configured so as to be larger than that of said magnetic resistance of said main magnetic path.

58. (New) An antenna structure according to claim 56, wherein a material different from said material forming said magnetic core is configured to be arranged inside of said gap portion.

59. (New) An antenna structure according to claim 56, wherein said gap portion is filled with a material different from said material forming said magnetic core.

60. (New) An antenna structure according to claim 56, wherein said gap portion is an air gap.

61. (New) An antenna structure according to claim 60, wherein said air gap is formed by inserting an intervening spacer within said gap portion.

62. (New) An antenna structure according to claim 49 or 56, wherein said antenna structure receives said radio wave including a long wave whose frequency is not more than 2000 KHz.

63. (New) An antenna structure according to claim 49 or 56, wherein said metal outer casing is formed by at least one member which is selected from a structure which is capable of storing said antenna structure inside thereof and comprising a side section and a

bottom cover section each of which is made of a metal material respectively and a structure capable of storing said antenna structure inside thereof and comprising a piece of metal member in which a side section and a bottom cover section are integrally formed into a one piece member.

64. (New) An antenna structure according to claim 56, wherein a cross section of said main magnetic path is different from that of said sub-magnetic path.

65. (New) An antenna structure according to claim 56, wherein a material of said main magnetic path is different from that of said sub-magnetic path.

66. (New) An antenna structure according to claim 56, wherein effective permeability of said sub-magnetic path is configured so as to be smaller than that of said main magnetic path.

67. (New) An antenna structure according to claim 56, wherein a film layer selected from a group consisting of a magnetic transmuted film layer, a non-magnetic film layer, and a film layer having low magnetic permeability, is formed on at least a part of a surface of said sub-magnetic path or of said main magnetic path.

68. (New) An antenna structure according to claim 56, wherein said main magnetic path and said sub-magnetic path form unit members, respectively each being independent from each other, and said main magnetic path and said sub-magnetic path are integrally connected with each other, after said coil is wound about said main magnetic path.

69. (New) An antenna structure according to claim 56, wherein said gap portion is formed in at least one of connected portions formed between said main magnetic path and said sub-magnetic path.

70. (New) An antenna structure according to claim 56, wherein said gap portion is formed in a part of said sub-magnetic path.

71. (New) An antenna structure according to claim 56, wherein a connected surface of said gap portion, which is provided in said sub-magnetic path, or a connected surface formed between an end face of said main magnetic path and an end face of said sub-magnetic path, is formed with a tapered configuration.

72. (New) An antenna structure according to claim 56, wherein said gap portion is formed by either one of two ways in which (a) the end faces of said main magnetic path and said sub-magnetic path are oppositely arranged to each other or (b) a part of a

surface of a portion of said sub-magnetic path and a part of a surface of another portion thereof, each of said surfaces being ones other than said end surfaces of said sub-magnetic path, are oppositely arranged to each other.

73. (New) An antenna structure according to claim 56, wherein said gap portion is formed in a portion where at least a part of said main magnetic path and at least a part of said sub-magnetic path are adjacently arranged to each other while in parallelism with each other.

74. (New) An antenna structure according to claim 56, wherein said gap portion is formed in a portion of said magnetic path except for a portion in the vicinity of a portion of said main magnetic path on which a coil is wound.

75. (New) An antenna structure according to claim 56, wherein said gap portion includes a member whose magnetic resistance differs from said magnetic resistance of a material forming said magnetic path.

76. (New) An antenna structure according to claim 56, wherein said gap portion is filled with a member which is one selected from a group consisting of a non-metallic and a non-magnetic material, and a non-metallic and magnetic transmuted material.

77. (New) An antenna structure according to claim 56, wherein said main magnetic path or said sub-magnetic path is made of a soft magnetic material.

78. (New) An antenna structure according to claim 56, wherein said main magnetic path is arranged so that said main magnetic path takes a position at which said main magnetic path directly faces to a direction from which said radio wave would come, with respect to said sub-magnetic path, so that said main magnetic path mainly can receive said radio wave rather than said sub-magnetic path.

79. (New) An antenna structure according to claim 78, wherein a length of said main magnetic path is configured to be longer than a length of said sub-magnetic path, whereby said main magnetic path is arranged so as to cover said sub-magnetic path so that said sub-magnetic path is not directly opposed to said direction from which said radio wave is coming.

80. (New) An antenna structure for receiving a radio wave which includes at least a magnetic core and a coil unit provided in at least a part of said magnetic core,

said antenna structure including a main magnetic path wherein a coil is wound about said magnetic core and a sub-magnetic path wherein said coil is not wound about a magnetic core,

a magnetic path formed along said magnetic core forming a configuration having a closed loop like configuration,

wherein a maximum gain reduction ratio of a gain value shown by said antenna structure in a case where a metal object is present in the vicinity of said antenna structure to a gain value shown by said antenna structure in a case where said metal object is absent in the vicinity of said antenna structure, is not more than 60%.

81. (New) An antenna structure according to claim 80, wherein said metal object includes at least one of a dial plate of a timepiece, an outer casing, a motor, a movement, a battery, a solar battery, a wrist band, a heat sink, a microcomputer, a gear train, and the like.

82. (New) An antenna structure according to claim 80, wherein said metal object is located within a certain distance from said antenna structure to which a magnetic flux output therefrom in a state wherein said sub-magnetic path is not added to said antenna structure can reach when said antenna structure receives said radio wave to produce resonance, and said metal object has a function of absorbing said magnetic flux.

83. (New) An antenna structure able to receive a radio wave , said antenna structure being arranged in a timepiece wherein at least one of a side section and a bottom cover section thereof is made of a metal material, wherein an external size of said timepiece is not more than 10mm in a thickness thereof and not more than 30mm in a diameter thereof, and further wherein said antenna structure is characterized in that an L value of said antenna structure is not more than 1600 mH and a winding resistance of said antenna structure is not more than 1 KΩ.

84. (New) An antenna structure according to claim 83, wherein said L value is not more than 800 mH and said winding resistance of said antenna is not more than 1 KΩ.

85. (New) An antenna structure according to claim 83, wherein said L value is not more than 220 mH and said winding resistance of said antenna is not more than 1 KΩ.

86. (New) An antenna structure according to anyone of claims 83 to 85, wherein said antenna structure is able to receive a radio wave and is arranged in a timepiece wherein at least one of a side section and a bottom cover section is made of a metal material, and a number of winding turns of said antenna is not lower than 400.

87. (New) An antenna structure according to anyone of claims 83 to 85, wherein a number of winding turns is not lower than 1000.

88. (New) An antenna structure according to anyone of claims 83 to 85, wherein a diameter of a winding wire is not more than 0.11 mmΦ.

89. An antenna structure according to anyone of claims 83 to 85, wherein

said antenna structure for receiving said radio wave is to be used inside a metal outer casing,

said antenna structure comprising a main magnetic path wherein a coil is wound about a magnetic core and a sub-magnetic path wherein said coil is not wound about a magnetic core,

a magnetic path formed along said magnetic core having a configuration of a closed loop like configuration,

a gap portion being provided in a part of said magnetic path of said antenna structure, said gap portion being configured so as to have magnetic resistance or magnetic permeability different from magnetic resistance or magnetic permeability of said magnetic path other than said gap portion, and said antenna structure having a structure wherein a magnetic flux caused by an external radio wave coming into said metallic outer casing can be

received but magnetic flux generated by resonance hardly leaks to an outside of said magnetic path.

90. (New) An antenna structure which receives a radio wave and comprising

at least a magnetic core portion and a coil portion which is provided on at least one portion of said magnetic core portion,

wherein, said antenna structure includes a main magnetic path wherein a coil is wound about said magnetic core and a sub-magnetic path wherein said coil is not wound about a magnetic core,

a magnetic path along said magnetic core forming a configuration having a closed loop like configuration,

said antenna structure being suitable to be used under circumstances wherein a metal material is present in the vicinity of said antenna structure, and

a Q value retention ratio Rq defined below, in a case where said metal object is present in the vicinity of said antenna structure, is not lower than 10%,

wherein said Q value retention ratio Rq is expressed by the following equation:

$Rq = Q_{NL}/Q_O \times 100$,

where the Q value of the antenna structure is set to Q_O in the case where the antenna structure is placed under an environment in which the antenna structure is not disposed in contact with the metal object or the metal object is absent in the vicinity of the

antenna structure, and Q values of the antenna structure are measured and set to Q_N in an environment where the antenna structure is disposed in contact with the metal object or the metal object is disposed in the vicinity of the antenna structure, and then the most lowest Q_N value is selected as Q_{NL}.

91. (New) An antenna structure according to claim 90, wherein said Q value showing said minimum value in said Q values, wherein a plurality of kinds of metal objects made of different metal materials are measured under said same condition, is selected as said minimum value Q_{NL} of said Q value of said antenna structure.

92. (New) An antenna structure according to claim 91, wherein said minimum value Q_{NL} of said Q value of said antenna structure is a value which is measured under circumstances, wherein a metal object made of stainless steel (SUS), titanium, or a titanium alloy is connected to said antenna structure, or said metal object is arranged in said vicinity of said antenna structure.

93. (New) An antenna structure according to anyone of claims 90 to 92, wherein said magnetic path forming said closed loop like configuration, is a path through which magnetic flux generated by resonance passes.

94. (New) A radio control timepiece which comprises a reference signal generating means for outputting a reference signal; a time keeping means for outputting time keeping information on the basis of said reference signal; a displaying means for displaying a time information on the basis of said time keeping information; a receiving means for receiving a standard radio wave having reference time information and a time information correction means for correcting the output time information output from said time keeping means based on the receiving signal received from a receiving means, said receiving means including an antenna structure having the structure defined by any one of claims 49, 56, 80, 83 or 90.

95. (New) A radio control timepiece according to claim 94, wherein said radio control timepiece has an outer casing unit which is made of metal material.

96. (New) A radio control timepiece according to claim 95, wherein at least one of a side section and a bottom cover section of said outer casing is made of said metal material.

97. (New) A radio control timepiece according to claim 94, wherein said main magnetic path of said antenna structure is arranged in an outer periphery of said radio

control timepiece and said sub-magnetic path is arranged inside said main magnetic path relative to said outer periphery of said radio control timepiece.

98. (New) A radio control timepiece according to claim 96, wherein said antenna structure is provided on a surface of a dial plate of said radio control timepiece, said surface being opposite to another surface thereof which is facing to a windshield.

99. (New) A radio control timepiece according to claim 96, wherein said antenna structure is provided in said radio control timepiece, and further wherein at least a part of the portion of said sub-magnetic path of said antenna structure which opposes said outer casing unit of said radio control timepiece is covered with said main magnetic path.

100. (New) An antenna structure according to claim 49 or 56, wherein an L value of said antenna structure is not more than 1600 mH.

101. (New) An antenna structure according to claim 49 or 56, wherein an L value of said antenna structure is not more than 800.

102. (New) An antenna structure according to claim 49 or 56, wherein an L value of said antenna structure is not more than 220.

103. (New) An antenna structure according to anyone of claims 83 to 85, wherein a number of winding turns of said antenna is not lower than 400.

104. (New) An antenna structure according to claim 100, wherein a number of winding turns of said antenna is not lower than 1000.

105. (New) An antenna structure according to claim 100, wherein a diameter of a winding wire is not more than 0.11 mmΦ.